

REMARKS

Upon entry of this Amendment, claims 1-6 and 8-11 will be cancelled, claim 7 will remain pending, and claims 12-14 will be newly added.

The Office Action acknowledges the priority claim, and Applicants express their appreciation. However, Applicants point out that priority is ultimately to German Patent Application 102 18 592.1 filed April 26, 2002, and this appears to be misstated in Paragraph 3 of the Office Action.

The Office Action states that the title is not descriptive, but Applicants respectfully traverse. The Office Action simply concludes that the title is not descriptive and does not state a reason as to why, and in the absence of such a reason, Applicants do not understand the objection. The title appears to the undersigned to be fully descriptive of the compounds being claimed. If the Examiner is not convinced, Applicants respectfully request that the Examiner point out what is not descriptive in any future Office Action, and Applicants will amend the title accordingly. Otherwise, Applicants respectfully request withdrawal of the objection.

Applicants appreciate the Examiner pointing out a suggested arrangement of the specification, but Applicant's believe the outline suggested by the Examiner is optional and compliance with that outline cannot be compelled by the Examiner.

The Office Action objects to the use of the trademarks and Applicants have revised the section of the specification herein to capitalize the trademarks and otherwise comply with the objection. It is believed these amendments overcome that objection, and withdrawal of the objection is respectfully requested.

The Office Action rejects claims 7 and 9 under 102 (b) over WO 98/046607, under 102 (e) over U.S. Patent No. 6,559,151, and under 103(a) over the combination of the '607 reference in combination with U.S. Patent No. 5,593,996.

With regard to the rejection over U.S. Patent No. 6,559,151, because Applicants' priority claim (April 26, 2002) predates the publication date of the application (May 23, 2002), Applicants believe that the '151 Patent cannot be used as a reference in this case. Applicants are relying upon their priority date, and if the Examiner so requires, Applicants will be happy to furnish a certified English language translation of the priority document. The Examiner is invited to telephone the undersigned if such a translation is going to be required by the Examiner. It is

believed then, that the rejection over 102(e) is therefore overcome, and withdrawal of the rejection is respectfully requested. However, Applicants will still address the substantive aspect of the rejection in the remarks below for the convenience of the Examiner.

With regard to the rejections under 102(b), 102(e) and 103 (a), Applicants direct the Examiner's attention to position 7 in the molecule, which for clarity's sake is the point of attachment of moiety G.

Applicants have advanced the state of knowledge in the art by realizing the of all of the many possible substitutions at position 7 in the molecule, only certain substitutions provide the benefits described in the specification of the instant invention. For this reason, Applicants believe they are entitled to patent protection for the compound as defined in claims 7 and 12-13 and to the use of the compound as a microbicidal composition as set forth in Claim 14.

More specifically, Applicants point out that in the '607 and '151 references, both provide a heterocycle as a substituent at position 7, and therefore are themselves a selection invention within the broad scope of substituents possible at position 7 not forming a ring system with the nitrogen attached to the triazolopyrimidine core structure.

Applicants further point out that the term "heterocycle" describes a very wide range of possible compounds with very different chemical scope. In contrast, the claims of the present invention are very specific with regard to the substitutions at position 7 that provide the benefits of the present invention.

The '607 reference defines on page 5, line 14 to 21 heterocyclyl as a saturated heterocyclyl group with 5 to 6 carbon atoms selected from carbon, nitrogen, sulphur and oxygen. Further selected are pyrrolidine, pyrazolidine, piperidine, piperazine or morpholine.

The '151 Patent is also broad and in a first step a ring system has to be selected from a broad scope of possibilities for the substitution at position 7. It describes a 5 to 6 membered heterocyclic ring containing 1 to 4 nitrogen atoms or 1 to 3 nitrogen atoms plus an additional oxygen or sulphur atom (column 1, line 38 to 43). Preferred substituents are listed as pyrazolidine, piperidine, piperazine, morpholine (column 6, lines 23 to 27).

In contrast the present invention is much much more specific. With the

CS8373

present invention, the heterocyclic moiety is much more narrowly defined. The nitrogen atom which attaches to the triazolopyrimidine is directly lined to another nitrogen or oxygen atom. This forms a cyclic hydrazine or oxime group respectively **as the functional characteristic group of the molecule of the present invention. In addition, only two more heteroatoms selected from nitrogen, oxygen or sulphur can be present in the ring system of the present invention.**

There is no teaching, suggestion or motivation in any of the references cited in the Office Action directed to a cyclic oxime or hydrazine in the 7 position. Indeed, the references teach away from any such specificity. In fact, not only WO 98/046607 but also U.S. Patent No. 6,559,151 describe heterocyclic substituents at the 7 position. The '151 Patent describes even a broader scope for the substituents at position 7 also embracing unsaturated or bicyclic heterocyclic compounds (column 2, lines 7 to 17). Preferred substituents in this case include pyrrolidine, piperidine, dihydropiperidine, dihydropyridine, piperazine, morpholine, thiazine, azepane, azocane, and dioxo-aza-spiro-dicyl.

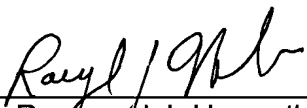
The inventive step of the present invention is first that none of the references teach the specific substitutions claimed at position 7 by the present invention, and still further, the inventive step includes the realization that the selection of the claimed cyclic oximes and hydrazines at position 7 as claimed by the present invention represent a very narrow range at the 7 position in which unexpectedly superior microbicidal activity may be found.

Applicants include herewith as **Attachment A**, biological data which clearly shows the superiority of the present invention where the substitution at position 7 includes the N-N hydrazine cyclic moiety as opposed to a cyclic ring where the nitrogen atoms are spaced from one another about the ring structure. In that case, efficacy is shown to be 95% where the hydrazine moiety is present in the ring structure over 11% for the ring structure not containing the hydrazine moiety. This is clearly unexpected and represents a substantial advance in the state of human knowledge in the art, for which Applicants respectfully assert they are entitled to patent protection.

If the Examiner requests this same data in the form of a Declaration, the Examiner is respectfully requested to telephone the undersigned before issuing any further Office Action, and the Declaration will be cheerfully provided.

It is believed the rejections and objections have been overcome by this Amendment. Review and reconsideration of the claims, and allowance thereof are respectfully requested.

Respectfully submitted,

By 
Raymond J. Harmuth
Attorney for Applicant(s)
Reg. No. 33,896

Bayer CropScience LP
Patent Department
2 T.W. Alexander Drive
Research Triangle Park, NC 27709
Ph: (919) 549-2102
Fax: (919) 549-3994
Q:patents/prosecution documents/cs8373/8373 amendment



LeA36032/CS8373 / US Serial No.10/511,821

Example

Sphaerotheca Test (Cucumber) / protective

Solvent: 49 parts by weight of N,N-dimethylformamide

Emulsifier: 1 part by weight of alkylaryl polyglycol ether

To produce a suitable preparation of active compound, 1 part by weight of active compound is mixed with the stated amounts of solvent and emulsifier, and the concentrate is diluted with water to the desired concentration.

To test for protective activity, young cucumber plants are sprayed with the preparation of active compound at the stated application rate.

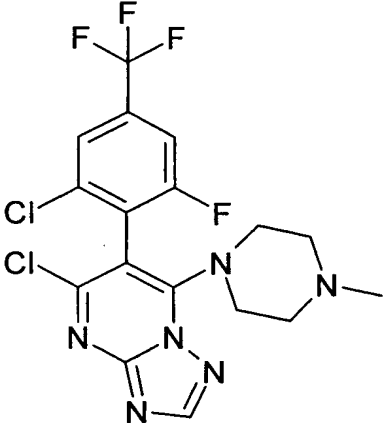
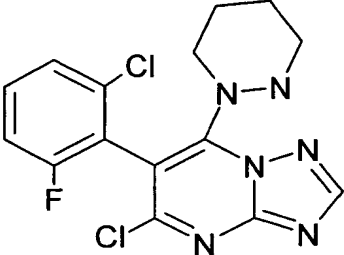
1 day after the treatment, the plants are inoculated with a spore suspension of *Sphaerotheca fuliginea*. The plants are placed in a greenhouse at a temperature of about 23°C and a relative atmospheric humidity of about 70%.

Evaluation is carried out 7 days after the inoculation. 0% means an efficacy which corresponds to that of the control, whereas an efficacy of 100% means that no infection is observed.

Active compounds, active compound application rates and test results are shown in the table below.

ATTACHMENT A

Table**Sphaerotheca-Test (Gurke) / protective**

| Active Compound <u>According to US 5,593,996</u> | Application rate of active compound in ppm | Efficacy in % |
|--|--|---------------|
| Within the generic scope of the claims  | 500 | 11 |
| <u>According to the invention</u> | | |
| Example 12  | 500 | 95 |